RESPONSE TO EPA REGION IV COMMENTS ON THE REVISED RI/FS WORK PLAN FOR THE MEDLEY FARM SITE

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SEC JOB NO. G-8026

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TECHNICAL COMMENTS

1. The "absence of any detectable contamination" does not appear to be an appropriate standard for termination of soil analyses in boreholes, considering the number of site-specific factors involved. The type of contaminant(s), the associated ARARs, the real or potential impact on ground waters, and the possibility of laboratory contamination must be considered in assessing the need for further analyses. In lieu of an arbitrary numerical standard to determine the ultimate depth of soil borings, it is proposed that all borings be terminated at a depth of 25 feet during Phase I of the Remedial Investigation. The need for additional soil samples will be addressed at the end of Phase I.

   Trends in contaminant concentrations across the site and within boreholes should be evaluated as part of the assessment of Phase I analyses. For example, a sharp decrease in concentration with increasing depth could be extrapolated to infer a minimal quantity or absence of contaminants at the next projected boring interval. This scenario is consistent with site disposal history, as evidenced by the immediate removal action and subsequent cost recovery action. The immediate removal action found that waste was placed at the surface or in lagoons and not buried. These disposal practices were corroborated by the testimony obtained by the Justice Department during the cost recovery action. The only indication of buried materials is a small anomalous zone detected during the NUS electromagnetic survey. Absence of buried materials indicates that contaminant concentrations should be attenuated with depth. In addition, there are technical questions regarding the feasibility of remediation for trace contaminants at depths greater than 25 feet.

   For the above reasons, and in an effort to direct resources to legitimate areas of concern, it is proposed that soil sample collection be terminated at 25 feet during Phase I. Analysis of all soil, ground water, surface water and sediment will then be reviewed by EPA and the RI/FS consultant at the conclusion of Phase I activities during the scheduled evaluation period. The site remediation schedule

should not be impacted since a period is already set aside for review of the Phase I results. The type and levels of contamination found in the soils during Phase I will be viewed in light of overall site conditions in determining the number and type of additional analyses that are required during Phase II. The effectiveness of the field screening methods can also be confirmed at this time to help guide the Phase II sampling program.

2. The Draft Work Plan specifies a 1 inch headspace for OVA screening (p. 31), not 1/4-inch as stated in the EPA comments. The volume of 1 inch of headspace in a "standard" (5.1" H x 1.9" D) 8-ounce sample jar is approximately 46 cm^3. At the OVA 128 operating flow rate of 1000 cm^3 per minute, the sample jar headspace will be read in 2.7 seconds. This period exceeds the manufacturer's stated initial response time of 2.0 seconds. To comply with the 90 percent rise time requirement of 5.0 seconds, however, the head space will be increased to $2\frac{1}{2}$ inches. This corresponds to an air sample volume of approximately 116 cm^3 and a sample read time of 7.0 seconds. The expanded head space provides a comfortable safety zone to ensure that the 90 percent rise time is achieved.

   All other aspects of the OVA screening will be as stated in the work plan. SEC's OVA screening methodology, using the expanded head space, was discussed with the technical department of Foxboro (manufacturer of the OVA 128), who confirmed that it conforms to manufacturer's recommended field screening procedures.

3. A 2-foot-thick layer of very fine sand will be installed immediately above the filter pack of each well prior to installation of the bentonite pellet seal. The bentonite pellet seal will then be allowed to hydrate for a minimum of 30 minutes prior to placement of grout. The low permeability of the fine sand will act as an additional safeguard to ensure that grout contamination of the filter pack adjacent to the well screen will not occur. The installation of a very fine sand layer has been specified on several Defense Environmental Restoration Program investigations conducted by SEC, and SEC

understands that EPA has approved this procedure at other Superfund sites in Region IV. Results of metals analyses and pH measurements on these and other monitoring wells installed and sampled by SEC indicate that grout contamination has not been a problem. We feel that careful quality control in the mixing and placement of the grout (i.e., ensuring that the grout is thoroughly mixed, the proper amount of water is used, and the grout is properly installed through a tremie pipe) will eliminate the potential for grout contamination. A specification for the "very fine sand" will be included in the POP.

4. Ground water at the Medley Farm Site is relatively deep (approximately 50-60 feet) within the low permeability, surficial saprolite aquifer. SEC's experience at similar sites in this area indicates that ground water flow and contaminant migration in the saprolite aquifer is generally slow. For these reasons, SEC believes that the time constant of the ground water system at the Medley Farm site is large enough that the 2-3 month interval between Phase IA and IB sampling will not impact the accurate modeling of contaminant transport. Any differences in contaminant concentrations between sampling events would most likely be within the standard error associated with sampling and analysis. Variances in information collected between Phase IA and IB from the same wells therefore could not be inferred as being the result of site transport mechanisms. However, we agree to resample monitoring wells MW-2 and MW-4 during Phase IB. These samples will be analyzed for the indicator parameters determined in Phase IA.

INFORMATIONAL COMMENTS

5. MW-1 is approximately 400 feet northwest of suspected disposal activities, in the presumed upgradient direction. During the site visit, EPA personnel commented that it was unlikely that the Sprouse contamination could have come from the Medley Farm Site. The location of the upgradient well will be determined in part using the results of the soil gas survey. The well pair was placed between the site and the Sprouse well to confirm that private well contamination is not the result of site activities.

6. Comparison of Figures 2.2 and 3.3 of the Draft Work Plan shows that MW-2 will be placed east-southeast of the existing monitoring well MD2A. This section of the suspected disposal area is outside of former lagoons and drum storage areas. The NUS geophysical survey indicates that the location for MW-2 is not within an anomalous zone. Nonetheless, an OVA will be used to monitor cuttings from the drilling as part of site health and safety precautions. Cuttings that are significantly above background readings will be containerized with ultimate disposal dependent on results of the MW-2 analyses.

7. It is accepted that the need for additional site activities will be determined after review of the Phase IA and IB results.

8. General soil and ground water analyses will be performed after it is determined that remedial alternatives need to be investigated. At that time, general analyses will be conducted in areas identified in the Risk Assessment as potentially requiring remediation.

EDITORIAL COMMENTS

9. The word has been corrected.

10. The word has been corrected.

11. The sentence will read: "The quality and validity of information generated during the RI must be consistently well documented since it will be used to estimate risks and guide the assessment of potential remedial action alternatives."